



# Nantucket's New Working Waterfront

*Towards Renewable & Resilient Energy for Nantucket*





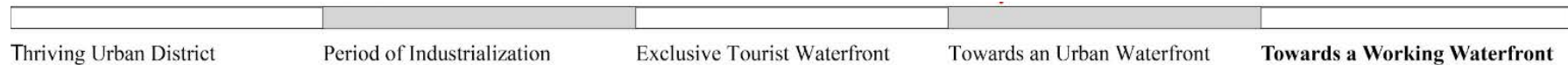
*mid - late 19<sup>th</sup> century*

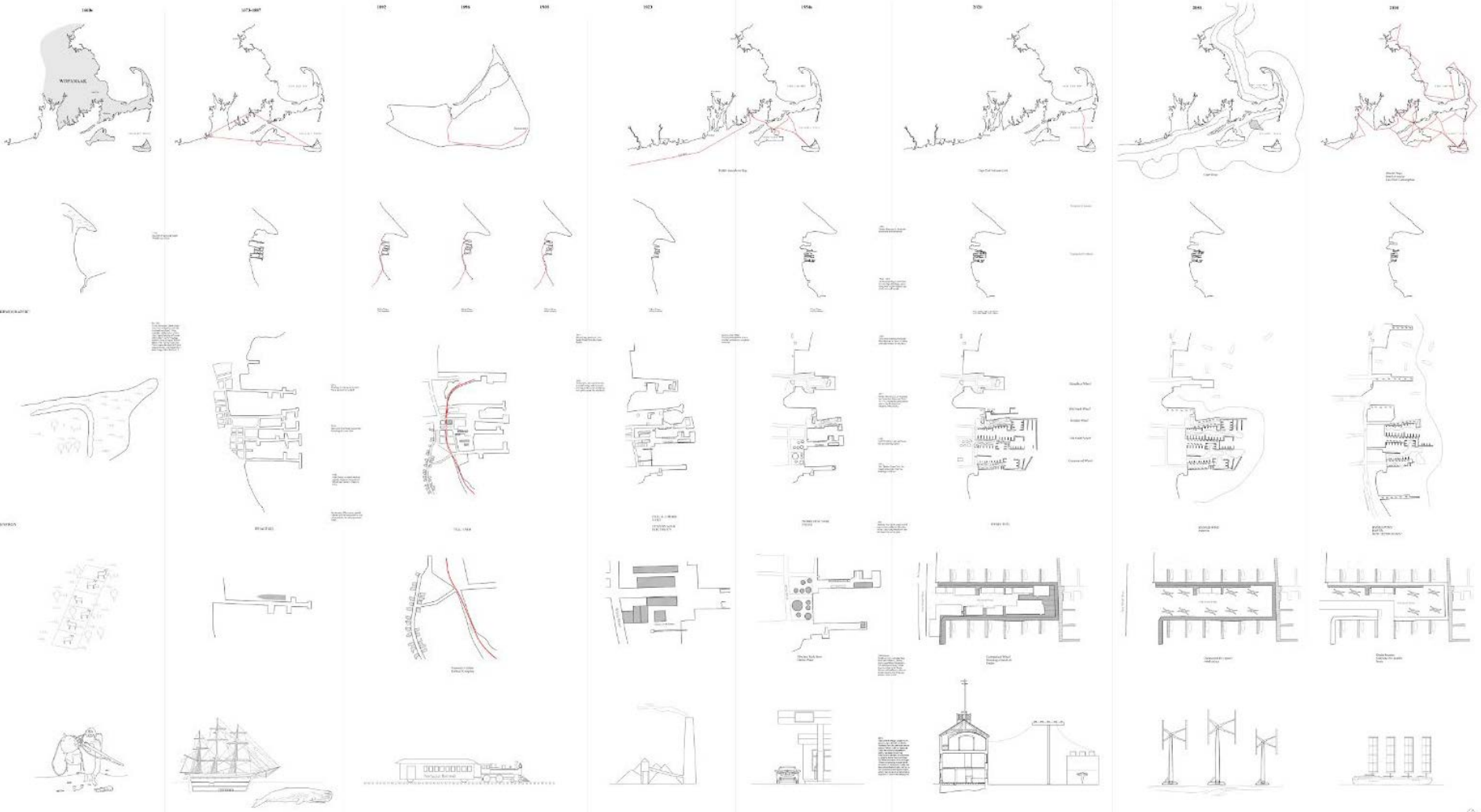


*early 20<sup>th</sup> century*



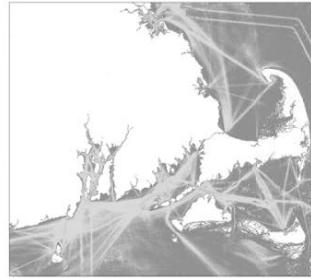
*mid 20<sup>th</sup> century - now*







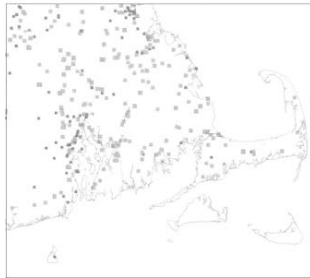
*Dredging channels*



*All Vessel Transit*



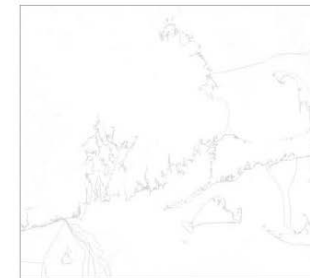
*Ferry Line*



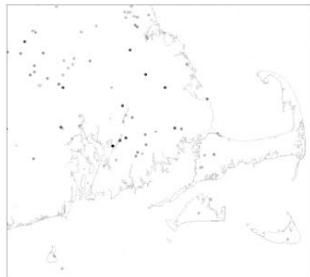
*Electrical Substations*



*Transmission Lines*



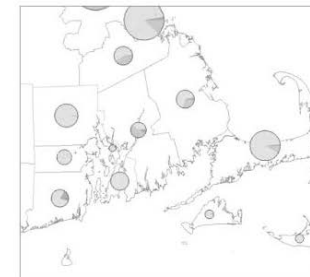
*Submarine Cables*



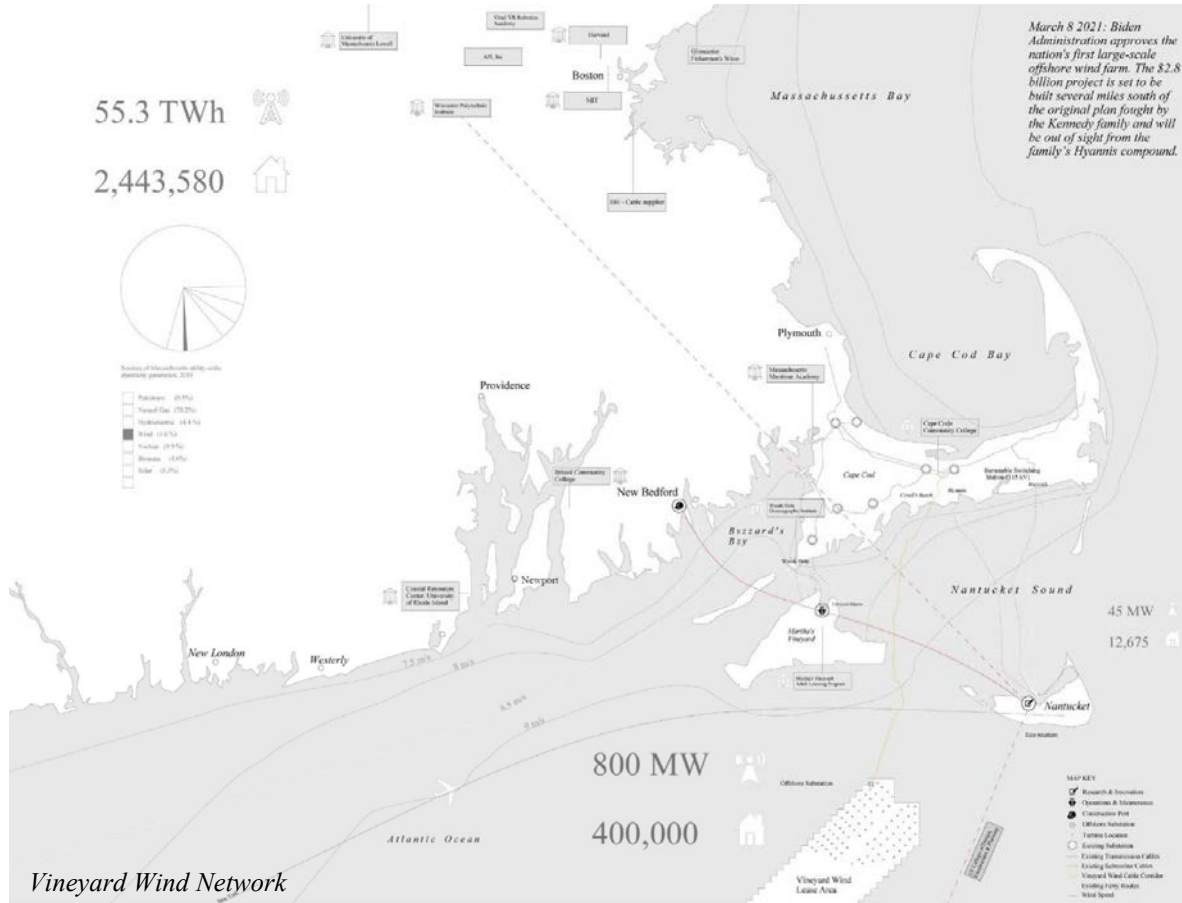
*Fossil Fuel Plants*



*Offshore Wind Energy*



*Maritime Tourism*



	Nantucket	State of MA
<b>Annual Growth Historical (5 Year Average)</b>	3.6%	0.6%
<b>5 Year Forecast</b>	3.2%	1.1%
<b>15 Year Forecast</b>	2.2%	0.8%

PARTNER WITH US  
FOR THE  
PLANET

GREAT TASTE BAKED WITH  
RENEWABLE WIND ENERGY

Shop Now

STOP & SHOP  
Delivery  
& Pickup



Trends in renewable energy is already happening in New England and on Nantucket...



**Nantucket public schools  
Students**

1,289

Teachers

117.5

Student-teacher ratio  
11.0 to 1

**Tourists  
(Daily basis)**

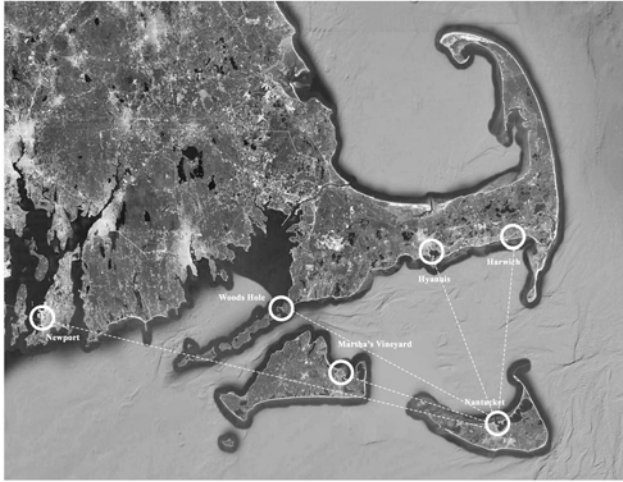
1,643 visitors



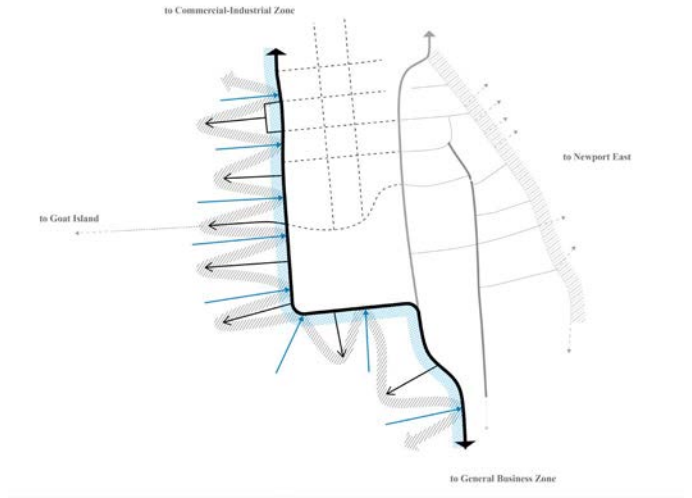
**Programs**

- 1 Training/Mentoring program
- 2 Education courses/tours - Local Nantucket High Schools
- 2 Curriculum Development - Offshore Wind 101
- 3 Education courses - Naval Architecture design course 101
- 4 Testing center for Vessels and Energy source prototypes
- 5 Private Offices
- 6 Seminar rooms
- 7 Lecture rooms
- 8 Event/Exhibitor Space
- 9 Eco-tourism boat Terminal
- 10 Maritime Library

## Potential New England Pilot Projects



## Mainland Pilot Project\_Newport



THE UNIVERSITY OF RHODE ISLAND

### Offshore Renewable Energy

With the first US offshore wind farm just miles away, URI has brought together a host of disciplines and world-class experts to better understand the sustained impacts of renewable energy siting, construction and implementation.

Academics

Research

Experts

Planning and Policy

Support from Local Educational Program

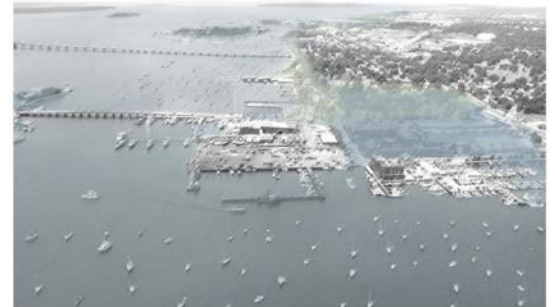
UNIVERSITY OF RHODE ISLAND

ENERGY FELLOWS PROGRAM

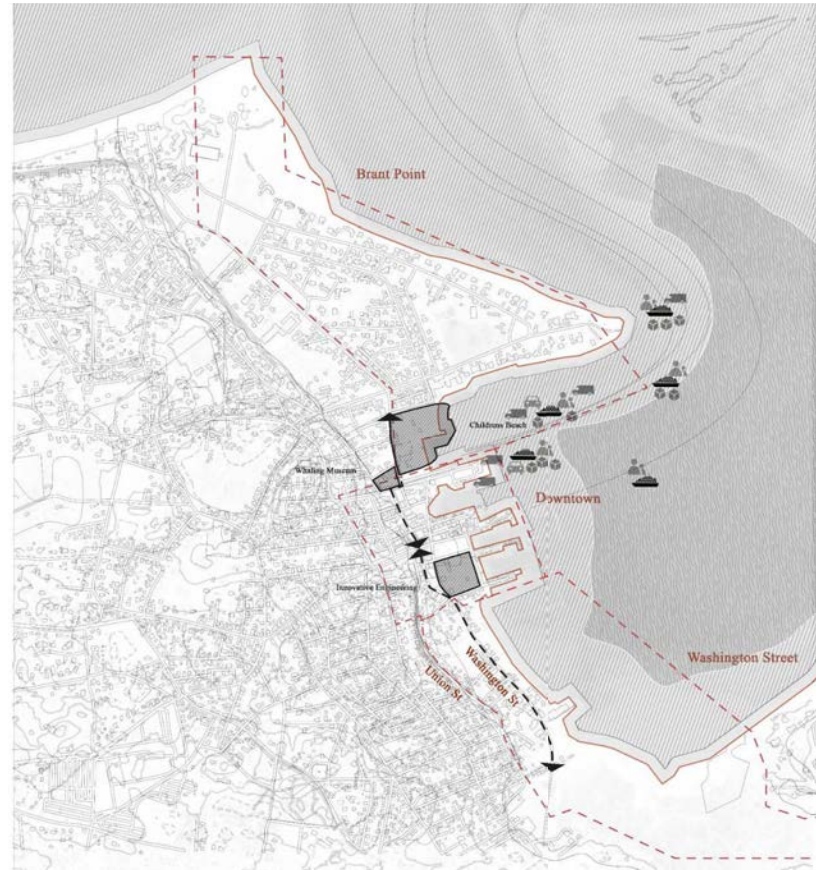
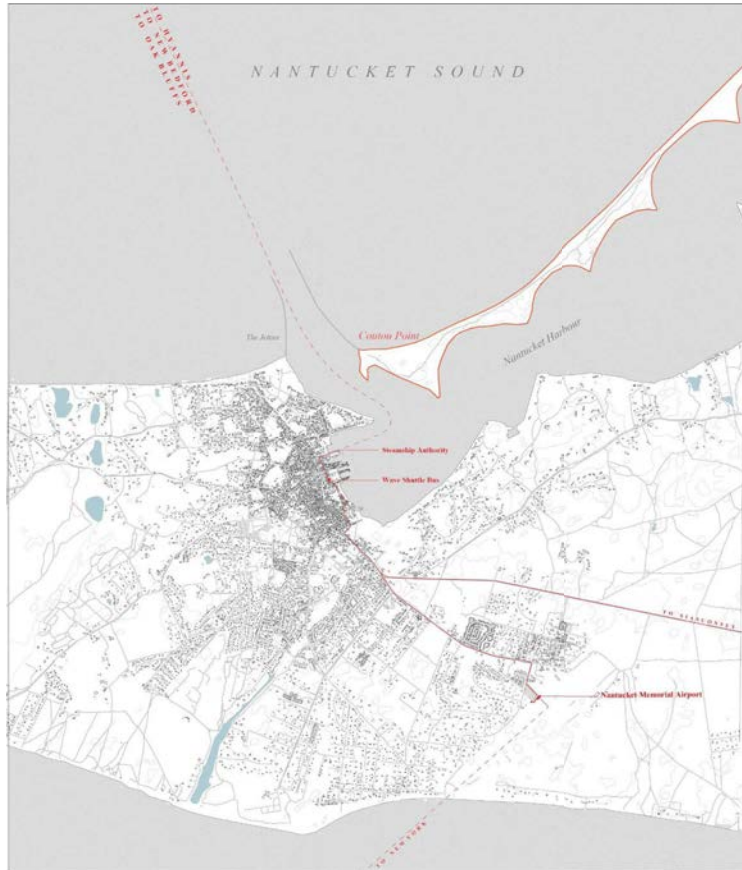
### VINEYARD WIND

Preparing the next generation

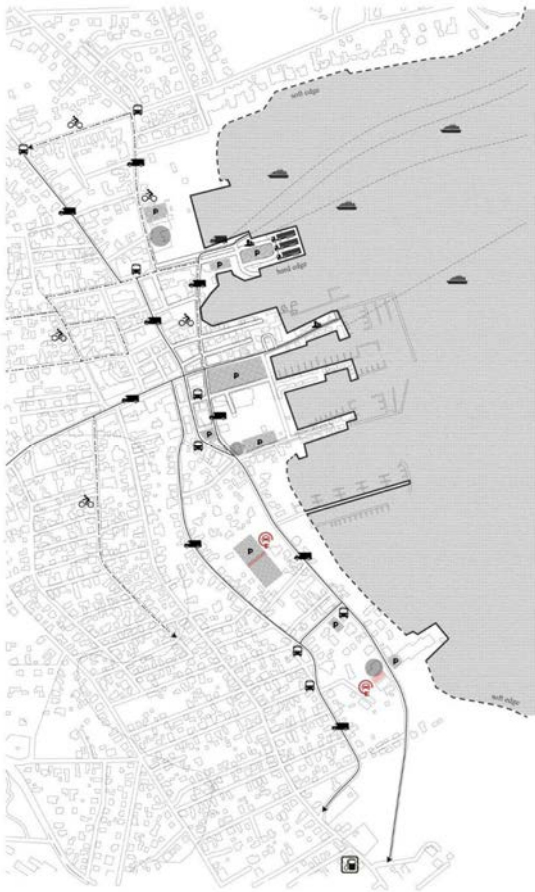
Goal of Clean Energy Future



New Working Waterfront Vision of Newport







Existing Grey Infrastructure



Fossil Fuels



Traditional Transportation



Grey Infrastructure



Hard Edge



Previous Housing Type



Previous Neighbourhood Pattern



Renewable Wind Energy



Sustainable Mobility



Green Infrastructure



Soft Edge

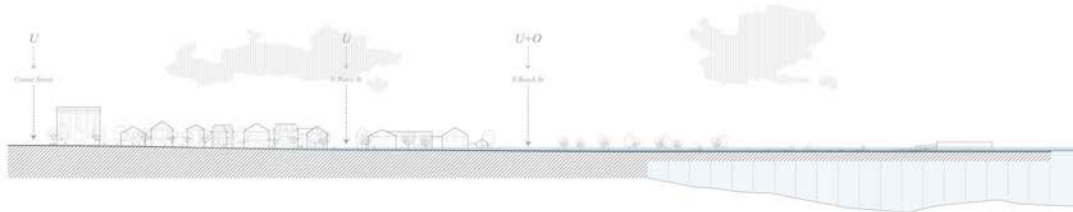


New Housing Type

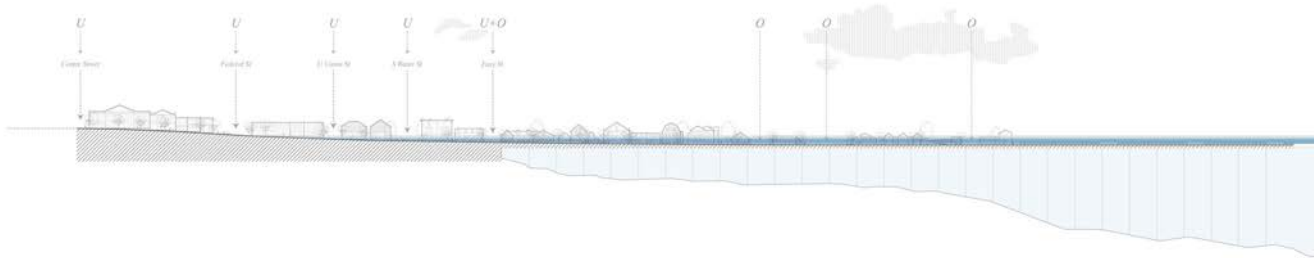


New Community Mode

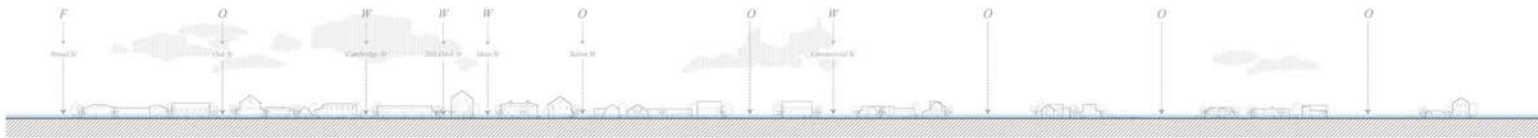




Broad St to The Steamship Authority



Main St to The Straight Wharf



S Water To Washington St



4.4.4

*2021*



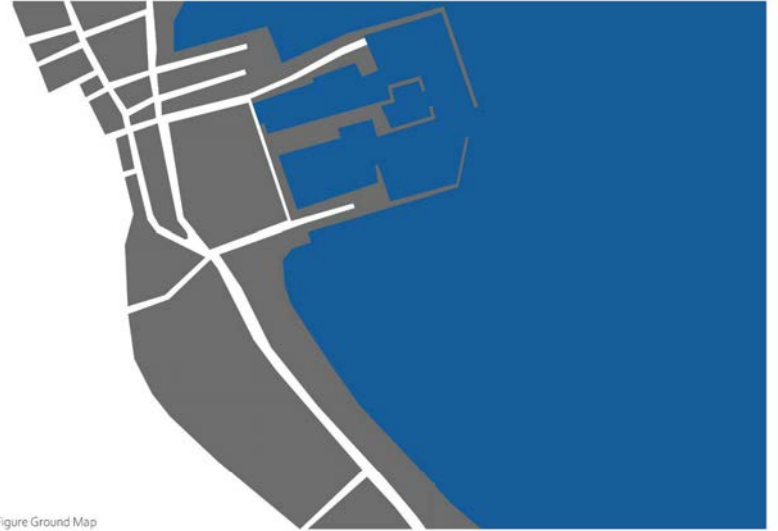
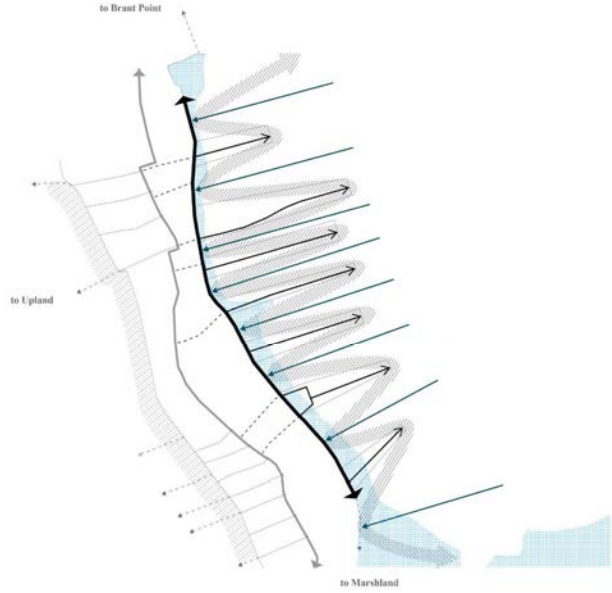
*2060*



S Water To Washington St

Main St to The Straight Wharf

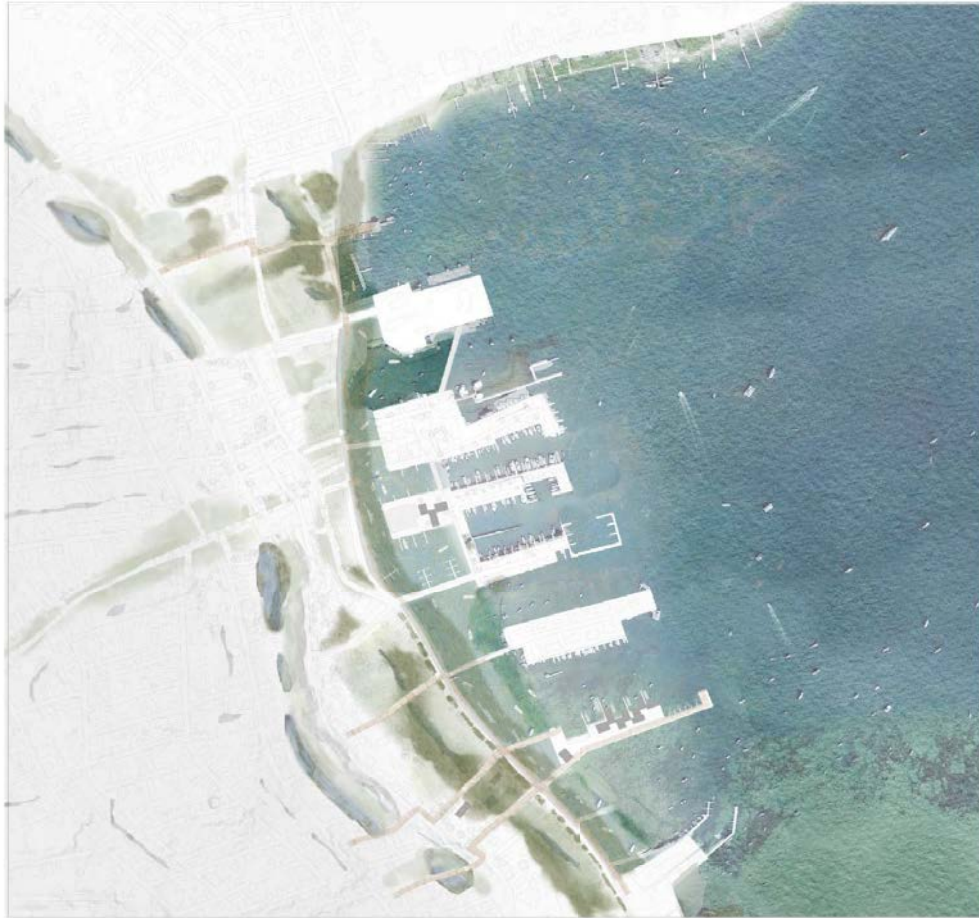
*2100*



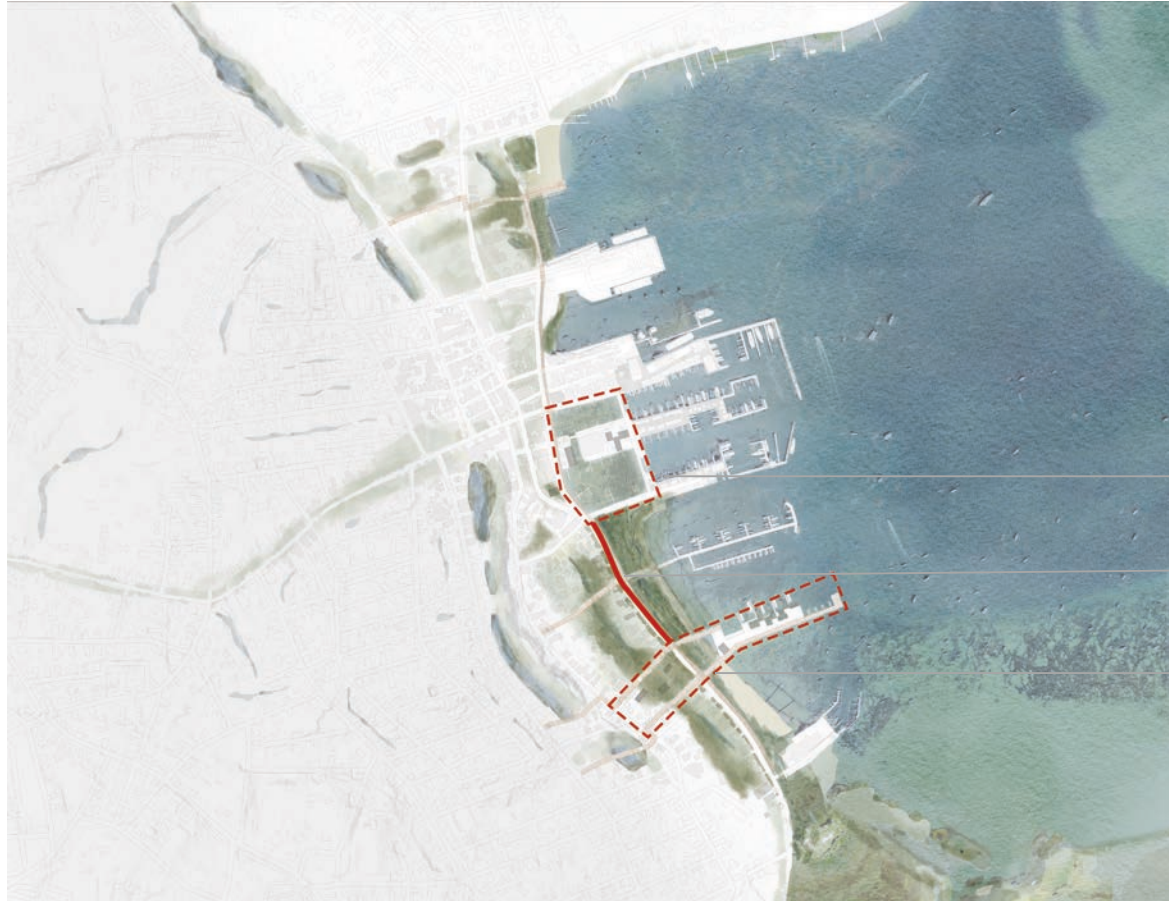
Street Block - Figure Ground Map



Vision\_2030



**Vision\_2100**



Pilot Project 2:  
New Harbor Place

Connector: New  
Washington Street

Pilot Project 1:  
Edge Pier Community



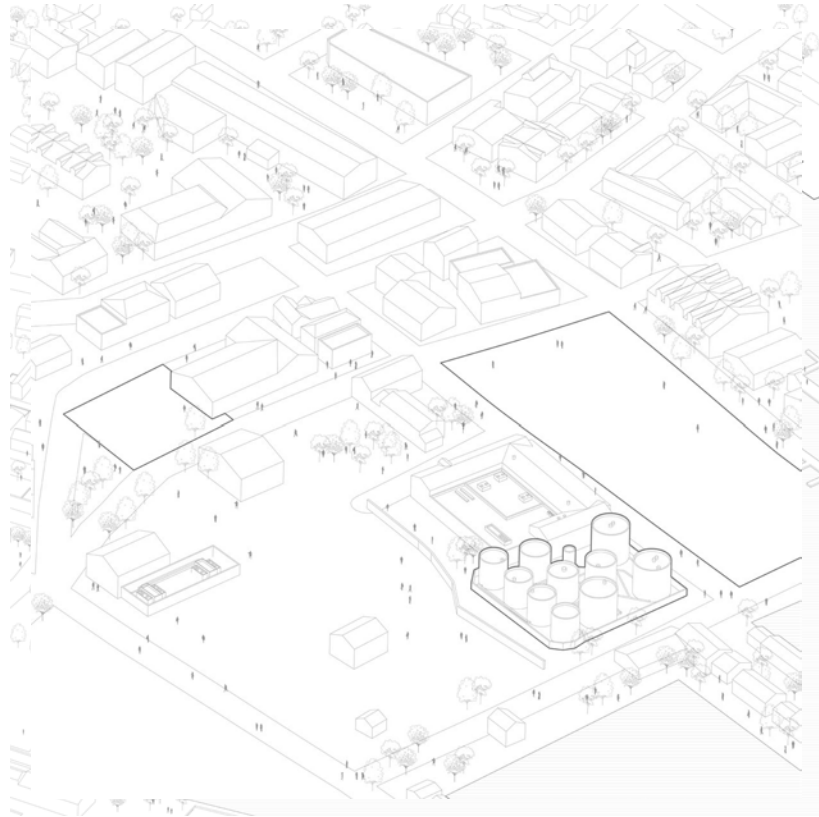
**Current Condition**



**Vision 2030**

**Edge Pier Intervention**





**Current Condition**



**Vision 2030**

**New Harbor Place Intervention**



**2021**

1st Round Reconstruction Plan Starts  
*(Vision: 2060 Flooding Control):*  
 Washington St raising +  
 Housing Adaptation +  
 Pier Construction



**2030**

1st Round Reconstruction Plan Completed:  
 Washington St raising +  
 Housing Adaptation +  
 Pier Construction



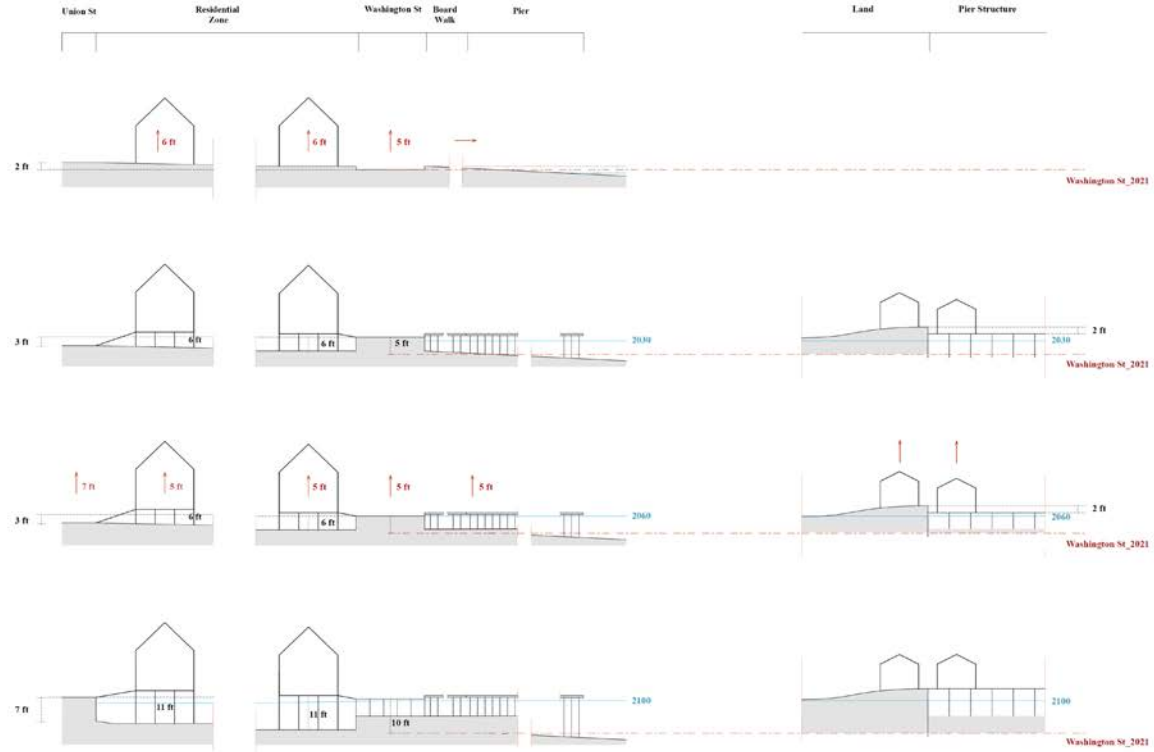
**2060**

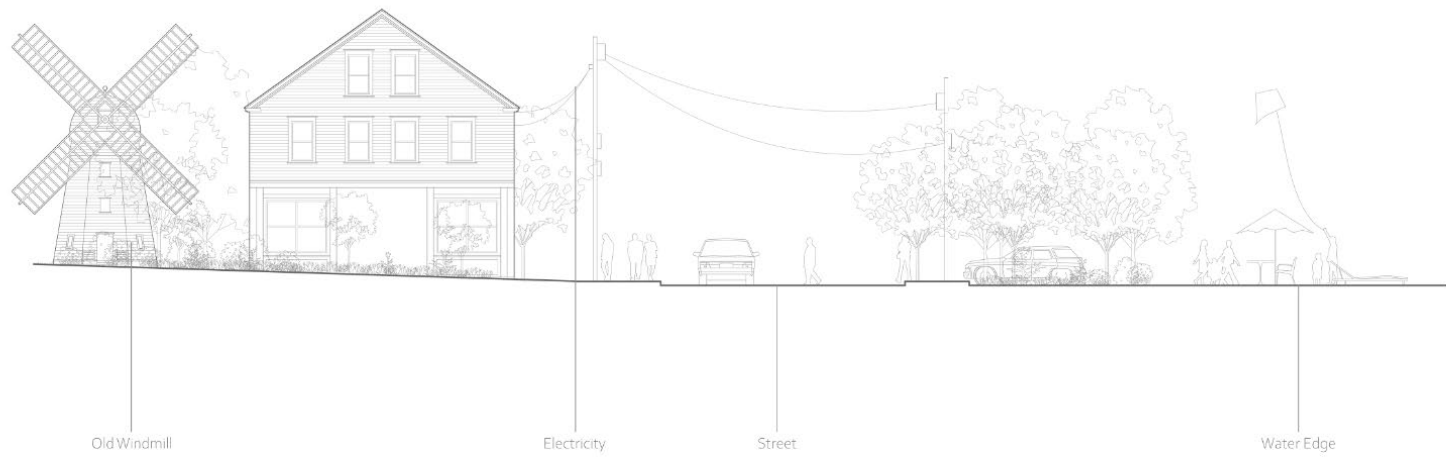
2nd Round Reconstruction Plan Starts:  
 Washington St raising + Union St raising +  
 Housing Adaptation +  
 Pier raising



**2100**

2nd Round Reconstruction Plan Completed:  
 Washington St raising + Union St raising  
 Housing Adaptation +  
 Pier raising





Washington Street 2020

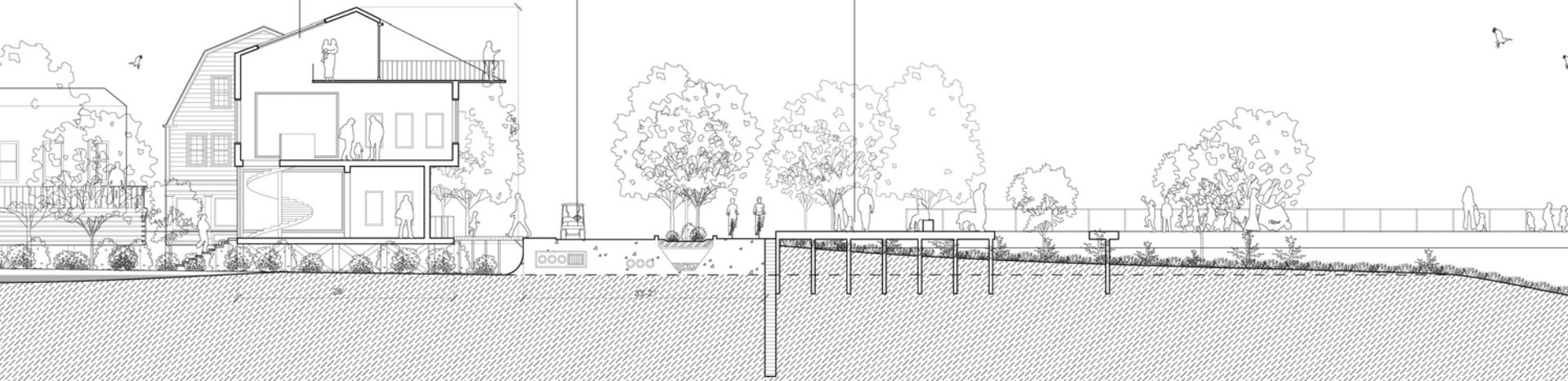


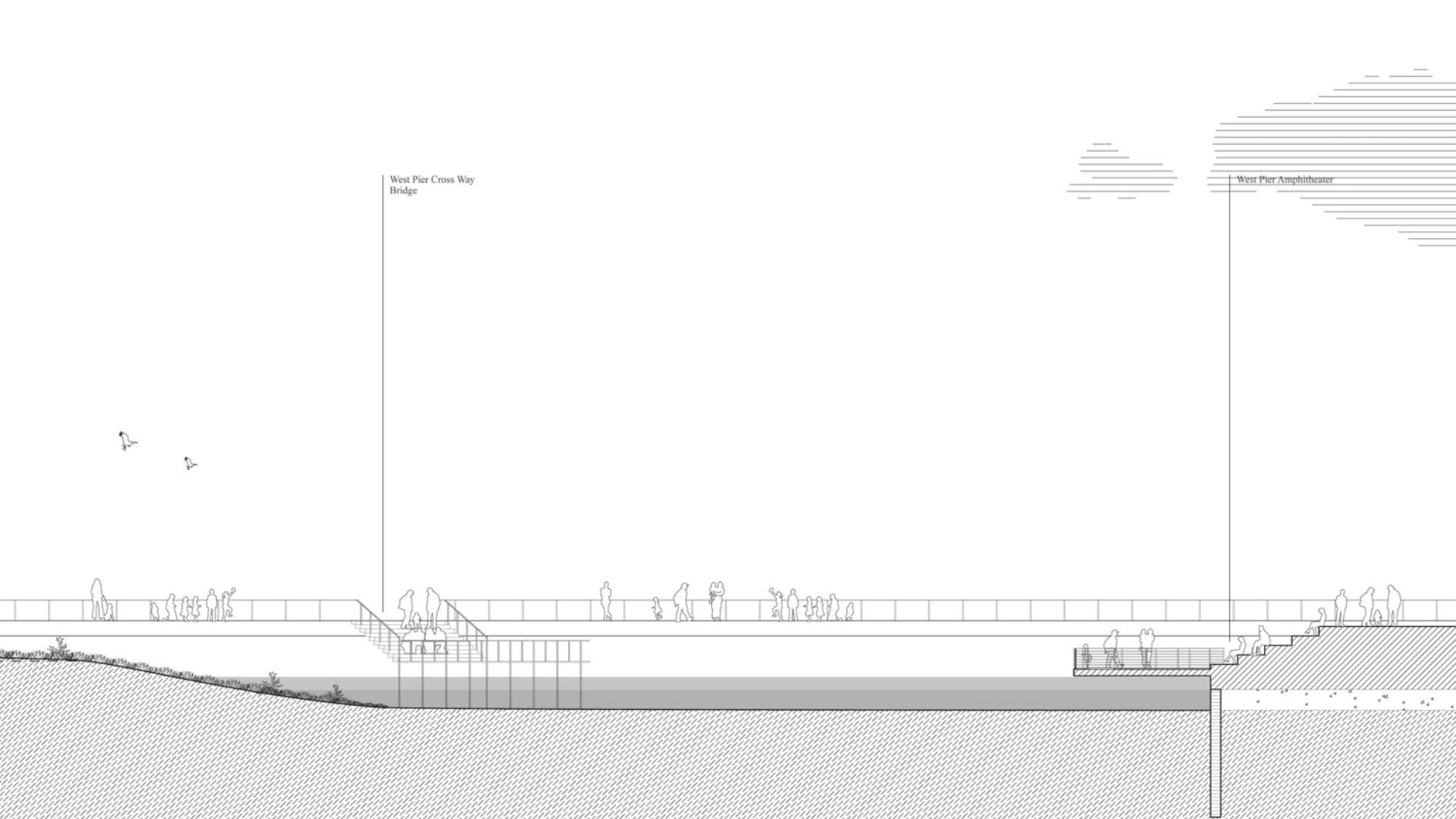


New Architecture Type on Washington St  
Function: New Housing Type/ Affordable Housing

New Washington St  
Electrical Car/ Biking/ Broad Walk/ Bio Swale

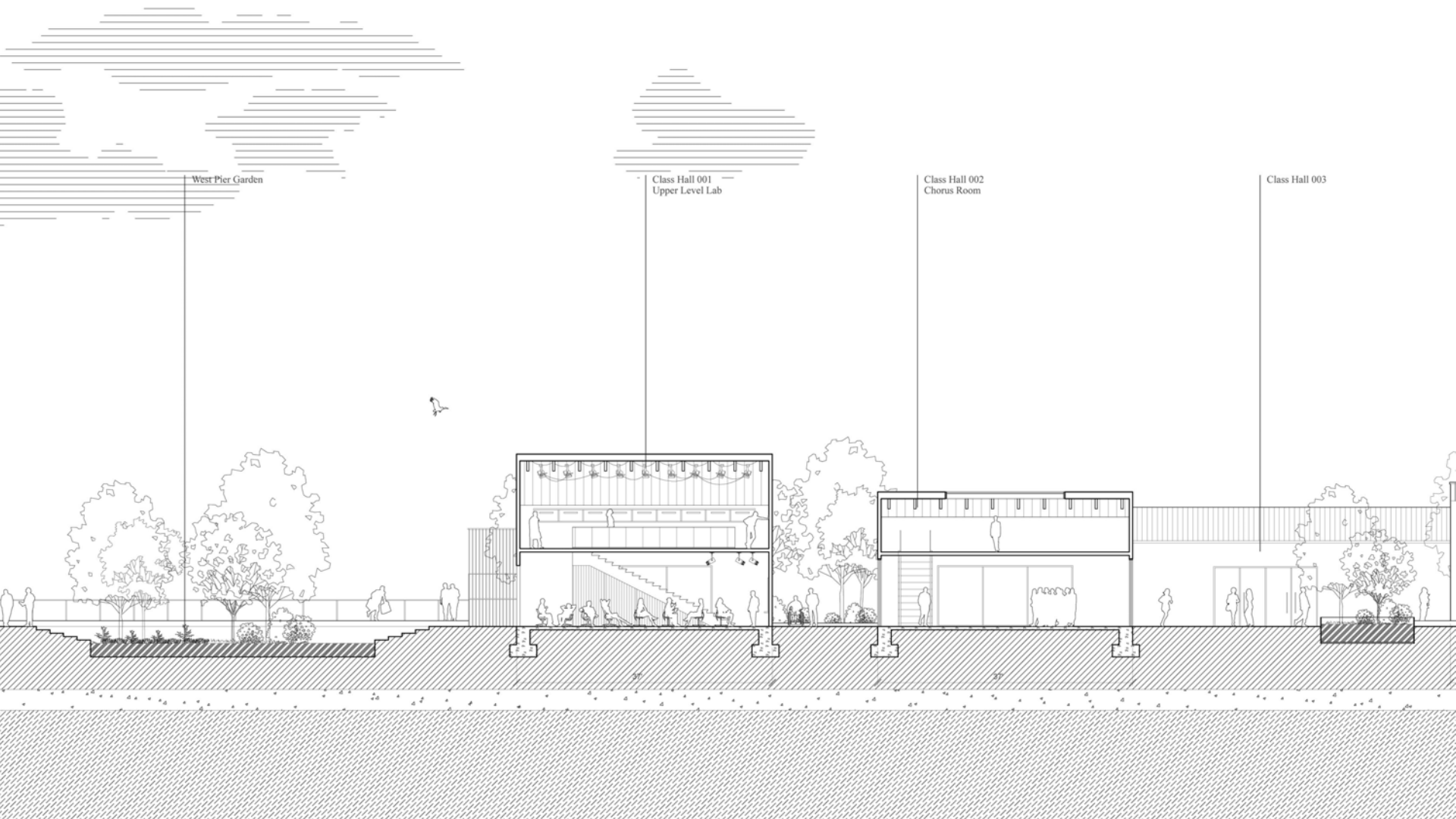
Pier on Lower Washington St  
Entrance





West Pier Cross Way  
Bridge

West Pier Amphitheater

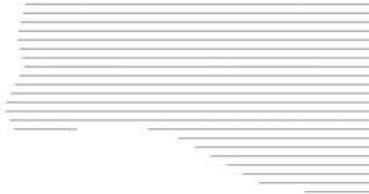


West Pier Garden

Class Hall 001  
Upper Level Lab

Class Hall 002  
Chorus Room

Class Hall 003

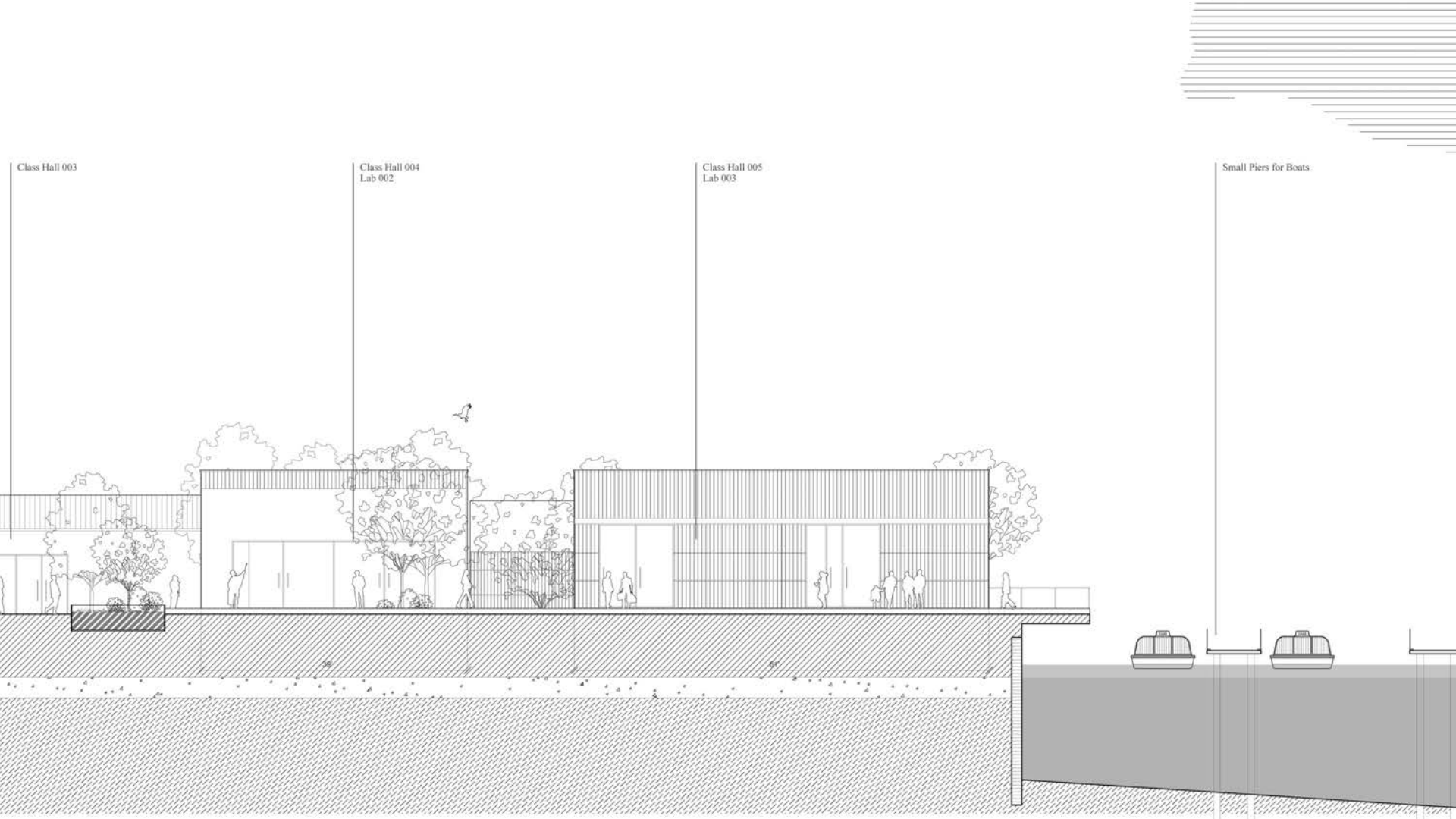


Class Hall 003

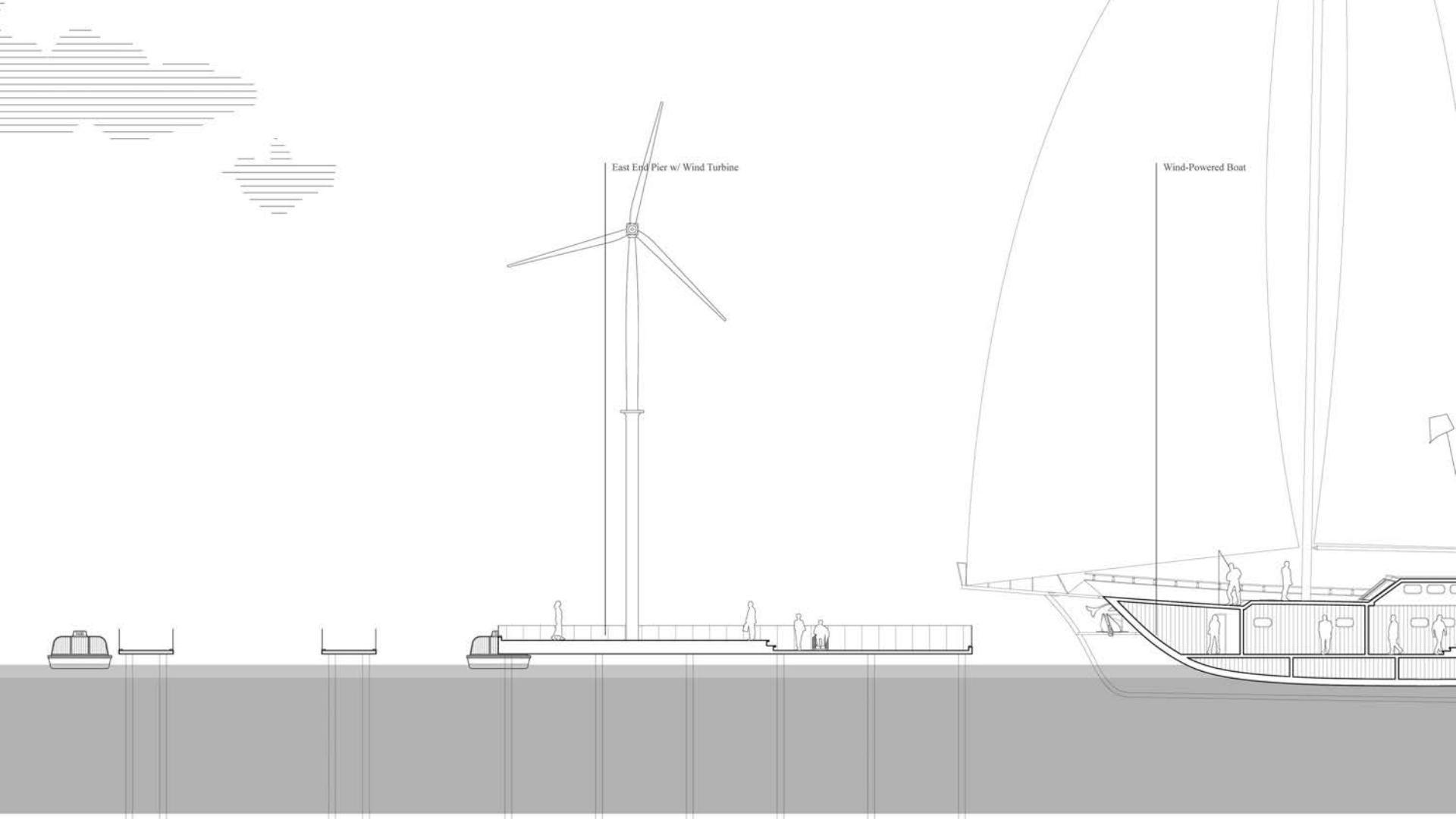
Class Hall 004  
Lab 002

Class Hall 005  
Lab 003

Small Piers for Boats







East End Pier w/ Wind Turbine

Wind-Powered Boat



Current Washington St



New Washington St



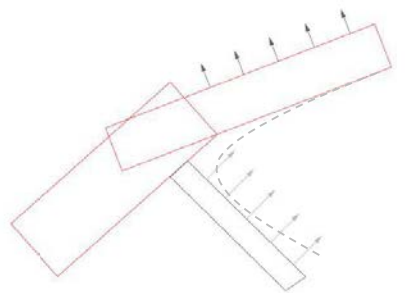
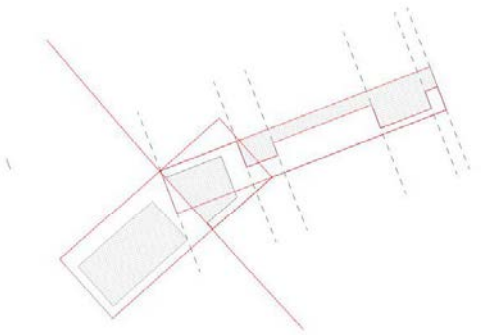
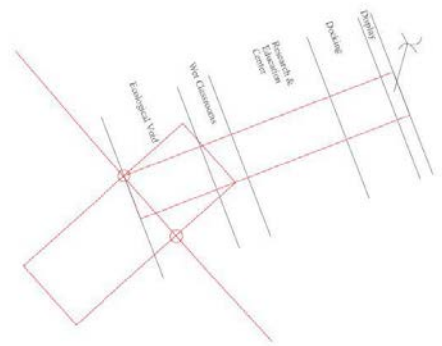
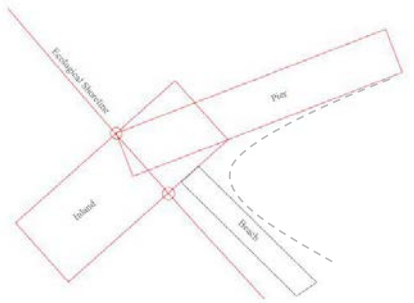
Current Neighborhood View

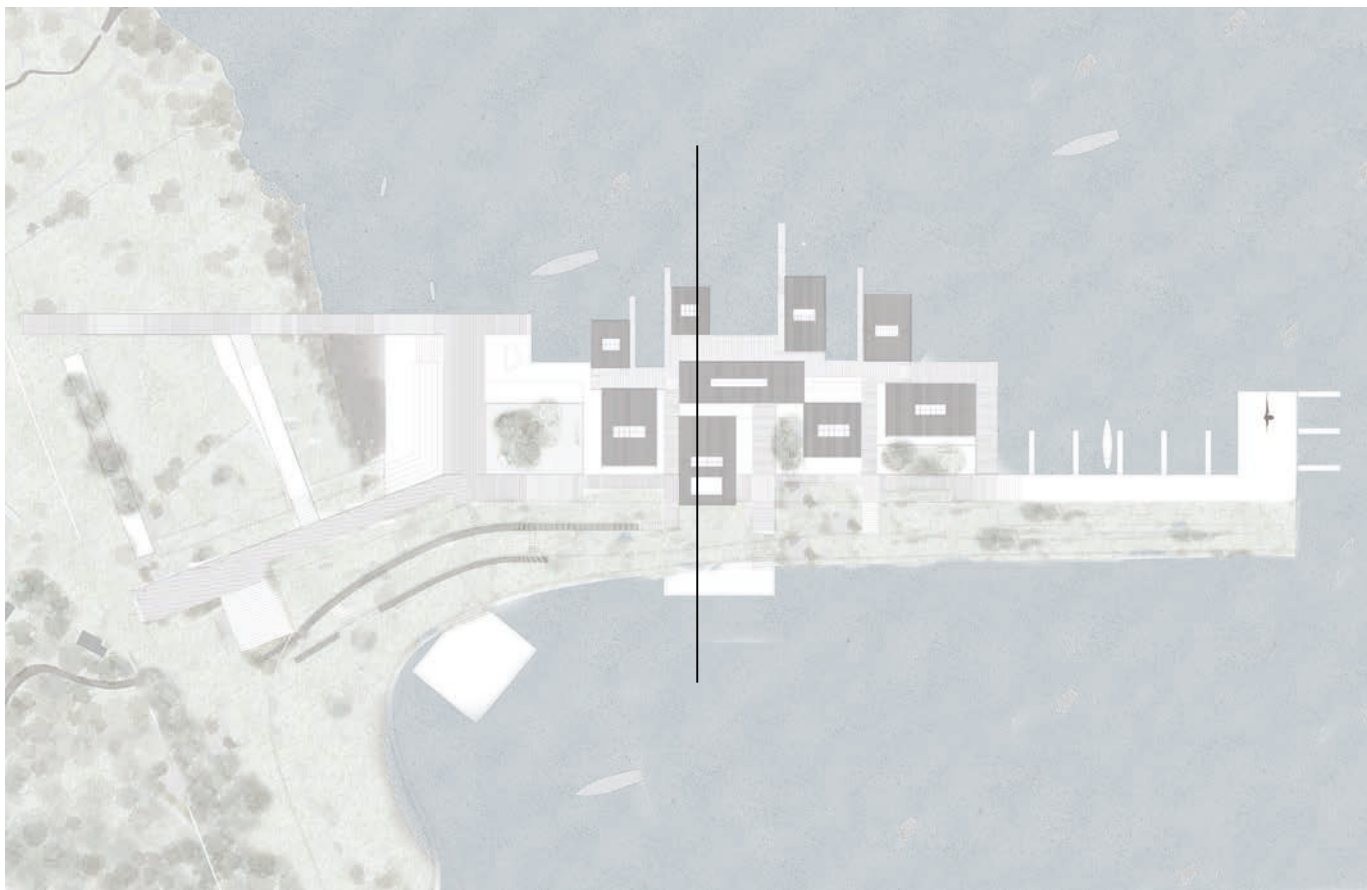


New Shared Street

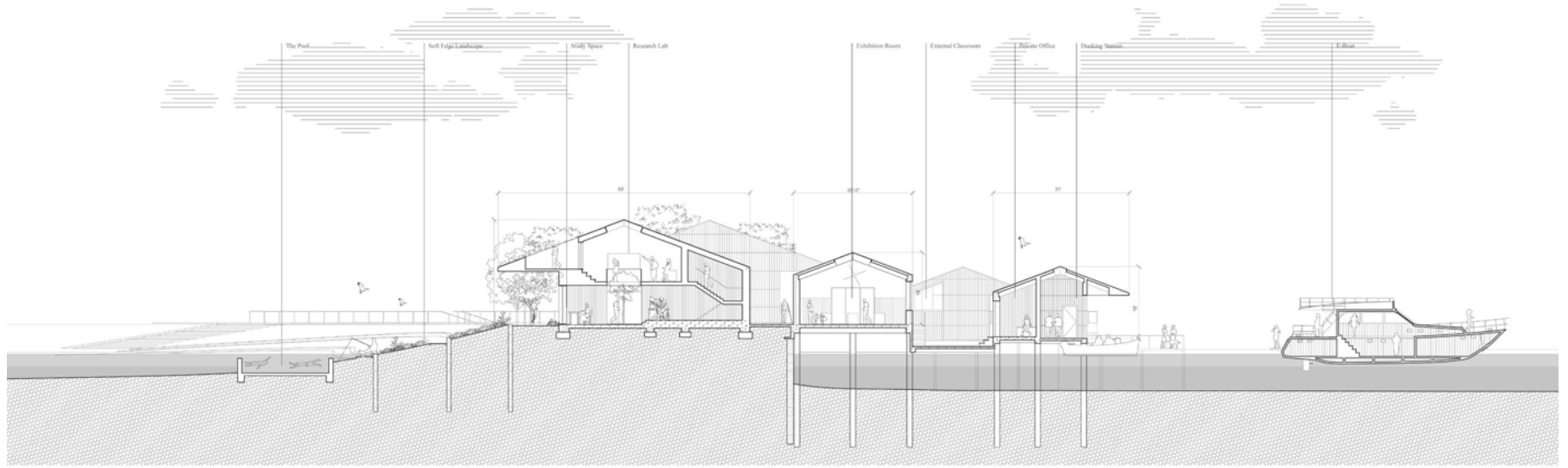


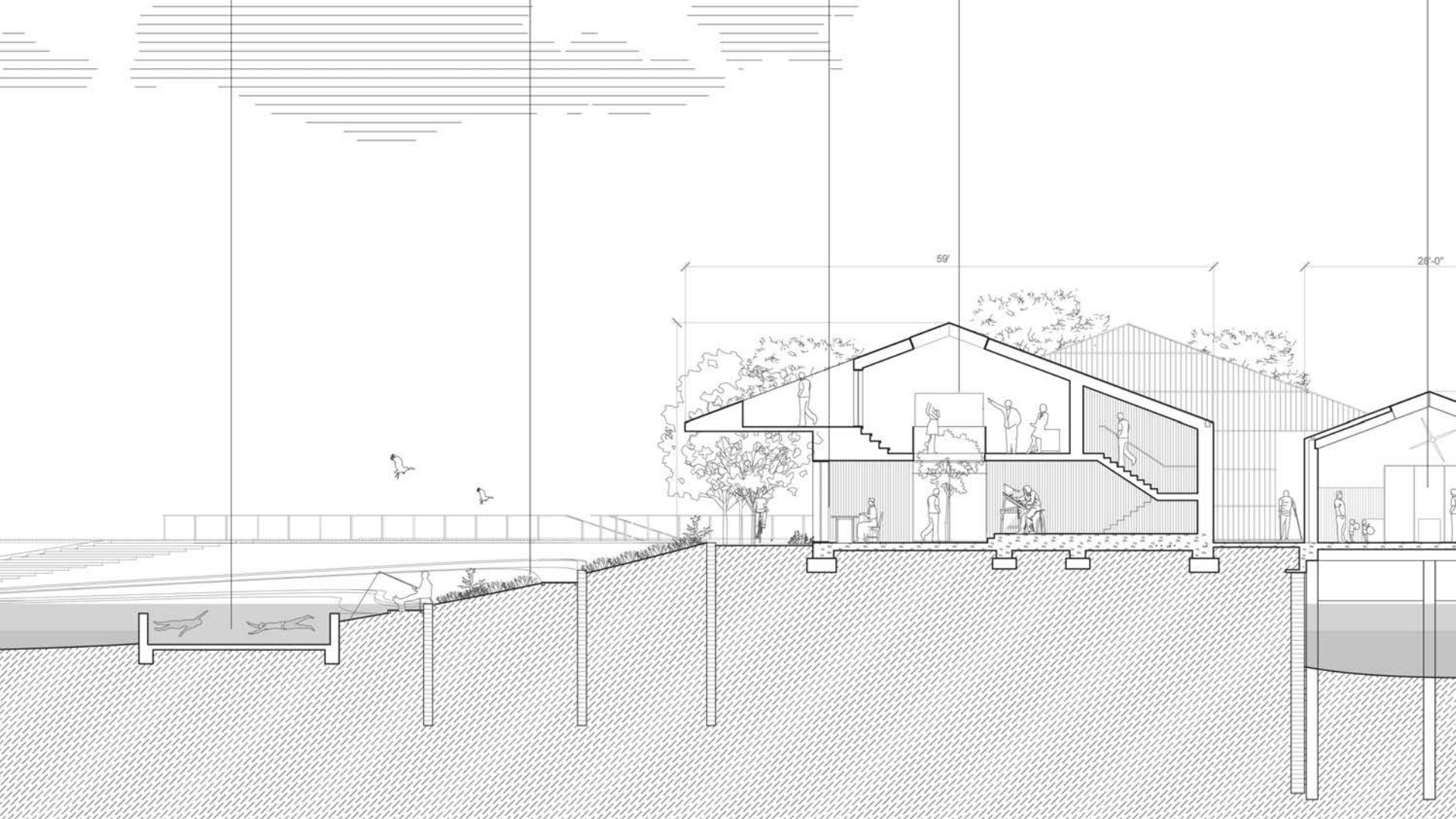
Small Wetland Community





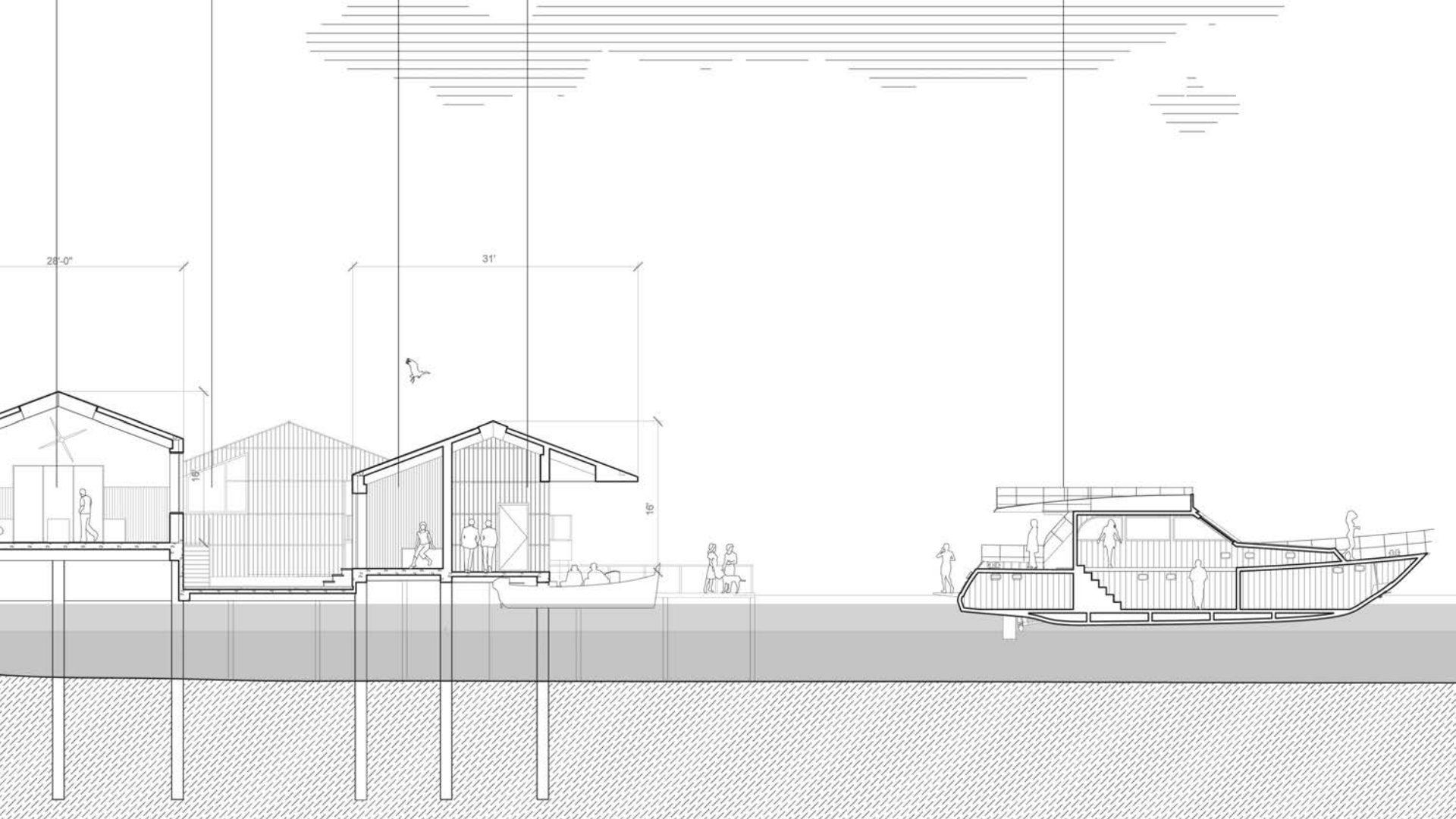








Southern Side of the Edge Pier



28'-0"

31'

16'

16'



Northern Side of the Edge Pier





Current Harbor Place



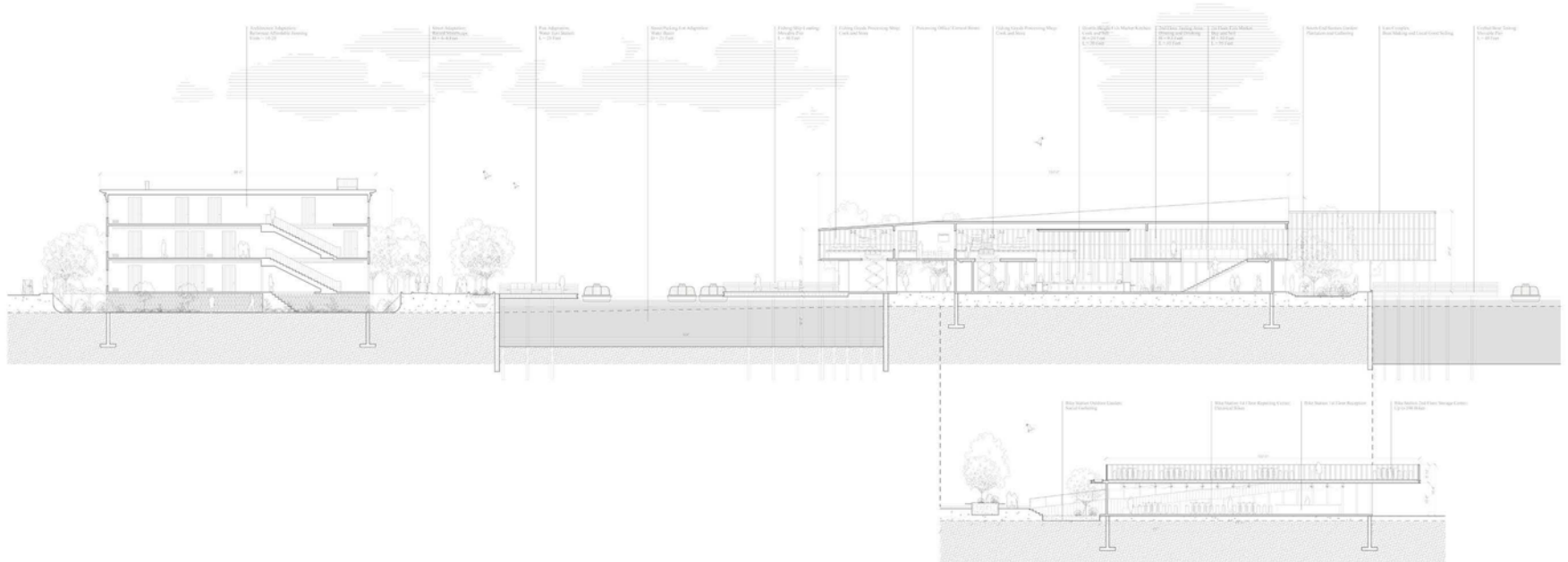
New Harbor Place



## Existing Condition



## New Harbor Place

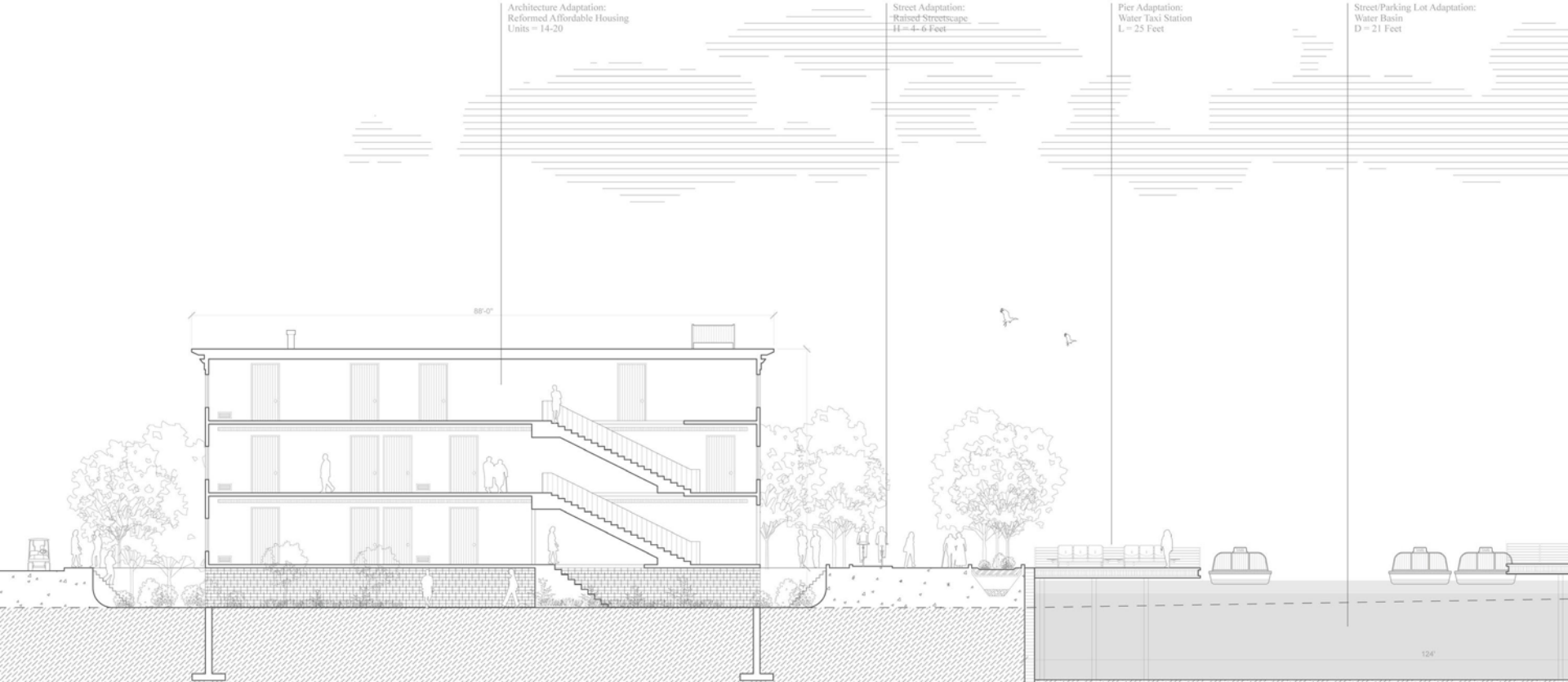


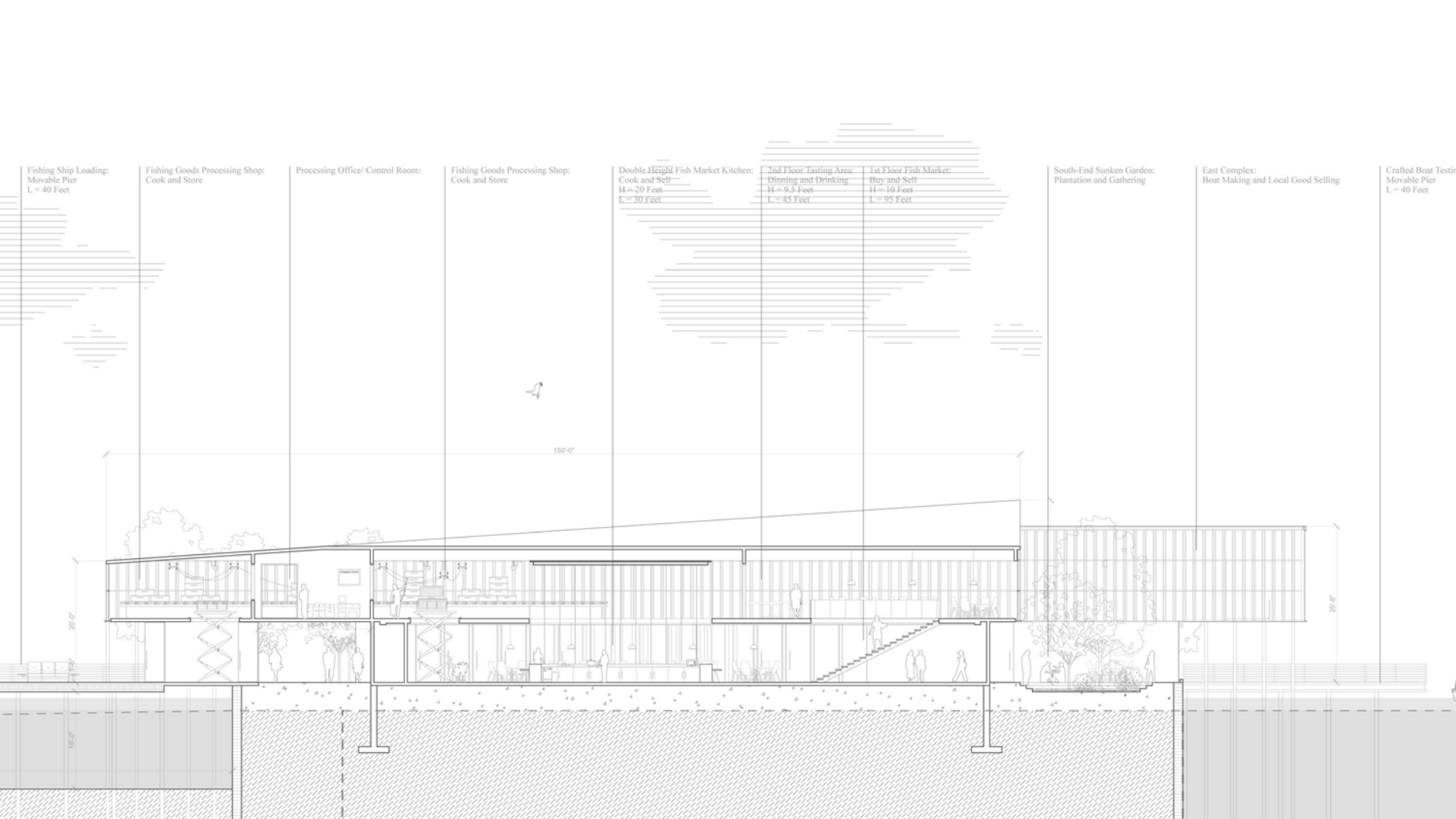
Architecture Adaptation:  
Reformed Affordable Housing  
Units = 14-20

Street Adaptation:  
Raised Streetscape  
H = 4 - 6 Feet

Pier Adaptation:  
Water Taxi Station  
L = 25 Feet

Street/Parking Lot Adaptation:  
Water Basin  
D = 21 Feet





Fishing Ship Loading:  
Movable Pier  
L = 40 Feet

Fishing Goods Processing Shop:  
Cook and Store

Processing Office/ Control Room:

Fishing Goods Processing Shop:  
Cook and Store

Double Height Fish Market Kitchen:  
Cook and Sell  
H = 20 Feet  
L = 30 Feet

2nd Floor Tasting Area:  
Dining and Drinking  
H = 9.5 Feet  
L = 45 Feet

1st Floor Fish Market:  
Buy and Sell  
H = 10 Feet  
L = 95 Feet

South-End Sunken Garden:  
Plantation and Gathering

East Complex:  
Boat Making and Local Good Selling

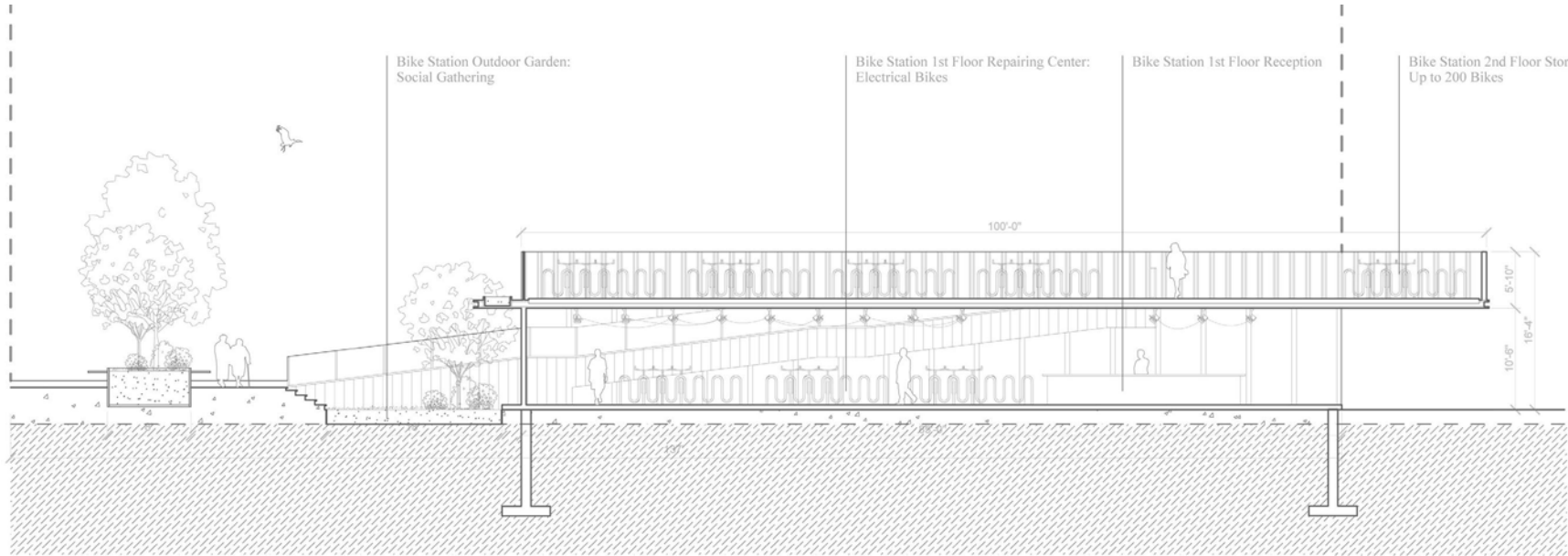
Crafted Boat Testing  
Movable Pier  
L = 40 Feet

157'-0"

28'-0"

16'-0"

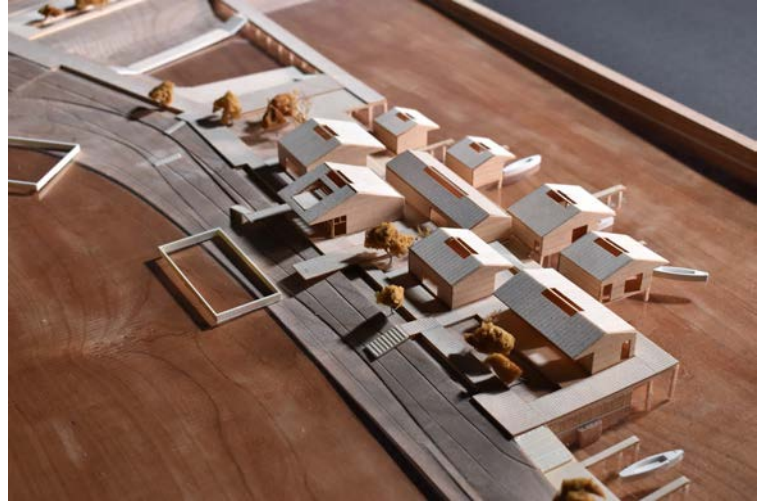
28'-0"















*Thank You*